CENTRE FOR DISTANCE AND ONLINE EDUCATION

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

DIPLOMA IN COMPUTER APPLICATION

Course Name: Problem Solving Using C **Semester: 1st**

Code: DCA-11-T **Total Marks=30**

Important Instructions

i Attempt all questions from each assignment given below.

ii Each assignment carries 15 marks.

iii All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on LMS portal.

ASSIGNMENT-I

Q1. Explain the importance of algorithms in problem-solving. Illustrate your answer with a flowchart that represents the steps to find the largest of three numbers.

Q2. Describe the C character set and explain the significance of identifiers and keywords in C programming. Provide examples of valid and invalid identifiers.

Q3. Differentiate between arithmetic and logical operators in C. Provide examples of expressions using both types of operators, and explain how control statements (if-else and switch) can be used to make decisions in a program.

ASSIGNMENT-II

Q1. Define a function in C. Discuss how parameters are passed to functions and the concept of recursion. Write a recursive function to calculate the factorial of a number and explain its working.

Q2. Explain the relationship between pointers and arrays in C. Illustrate your answer by writing a program that demonstrates how to use pointers to manipulate array elements.

Q3. Describe how structures are defined and processed in C. Explain the concept of unions and how they differ from structures. Additionally, outline the steps to open, create, and close a data file in C, including an example of reading from an unformatted data file.

Prepared By:

Er Vinod Goyal,

Assistant Professor (CSE),

CDOE, GJUS&T, Hisar

CENTRE FOR DISTANCE AND ONLINE EDUCATION

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

DIPLOMA IN COMPUTER APPLICATION

Course Name: PC Software **Semester: 1st**

Code: DCA-12-T **Total Marks=30**

Important Instructions

iv Attempt all questions from each assignment given below.

v Each assignment carries 15 marks.

vi All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on LMS portal.

ASSIGNMENT-I

Q1. Define an operating system and discuss its primary functions. How does MS Windows exemplify these functions in its user interface?

Q2. Describe the basic components of the Windows operating system, including the taskbar, icons, and title bar. Explain how users can manage files and folders effectively.

Q3. Explain the process of creating and formatting documents in MS Word. Discuss the role of macros and Mail Merge in enhancing document preparation.

ASSIGNMENT-II

Q1. Discuss the key features of MS Excel, including essential operations, formulas, and functions. Explain how to create and use Pivot Tables in data analysis**.**

Q2. What are the different network topologies? Compare the OSI and TCP/IP reference models in terms of their layers and functions.

Q3. Identify various networking devices such as routers and switches and explain their roles in a network.

Prepared By:

Ms Kapila Devi,

Assistant Professor (CSE),

CDOE, GJUS&T, Hisar

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR
CENTRE FOR DISTANCE AND ONLINE EDUCATION

Diploma in Computer Application

Course Name: Web Designing **Semester:1st**
Paper Code: DCA-13-T **Total Marks: 30**

Important Instructions

- **Attempt all questions from each assignment given below.**
- **Each assignment carries 15 marks.**
- **All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on student's portal.**

ASSIGNMENT - 1

Q1. What do you understand by internet? Explain its important features. 5

Q2. What is a web browser? Discuss in detail about searching and web casting techniques. 5

Q3. Explain the various steps involved in developing a website. 5

ASSIGNMENT - 2

Q1. Explain the important features of HTML documents. 5

Q2. Create a HTML web page with the help of list, table and Frame. 5

Q3. Explain the structure and syntax of XML. 5

Prepared By:
Dr. Neeraj Verma
Assistant Professor
(CSE) CDOE,
GJUS&T, Hisar

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

CENTRE FOR DISTANCE AND ONLINE EDUCATION

DIPLOMA IN COMPUTER APPLICATION

Course Name: Operating System **Semester- 1st**
Code: DCA-14-T **Total Marks: 30**

Important Instructions

vii Attempt all questions from each assignment given below.

viii Each assignment carries 15 marks.

ix All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on LMS portal.

ASSIGNMENT - 1

Q1. What is Operating System? Explain different types of OS. 5

Q2. Differentiate between Multiprocessor and Multiprogramming. 5

Q3. Define CPU scheduling? Describe the difference between pre-emptive and non-pre-emptive scheduling algorithms. Discuss in detail. 5

ASSIGNMENT – 2

Q1. Short Note on:

1. Deadlock detection and recovery.
2. Deadlock prevention and avoidance 5

Q2. Explain the various terms:

1. Virtual Memory
2. Thrashing 5

Q3. Differentiate between UNIX and Windows based operating systems. 5

Prepared By: Dr. Ritu
Assistant Professor (CSE)
CDOE, GJUS&T, Hisar

CENTRE FOR DISTANCE AND ONLINE EDUCATION

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

DIPLOMA IN COMPUTER APPLICATION

Course Name: Object Oriented Programming Using C++ **Semester: 1st**
Code: DCA-15-T **Total Marks=30**

Important Instructions

x Attempt all questions from each assignment given below.
xi Each assignment carries 15 marks.
xii All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on LMS portal.

ASSIGNMENT-I

Q1. Define the four core concepts of Object-Oriented Programming (OOP) in C++. Provide a brief explanation and an example for each concept.

Q2. Discuss the differences between a class and a struct in C++. Explain how they are structured in memory and provide an example of accessing members of both.

Q3. Explain dynamic memory allocation in C++ using new and delete. Write a short code snippet that demonstrates the allocation and deallocation of memory for an array of integers.

ASSIGNMENT-II

Q1. What is inheritance in C++? Explain the different access specifiers (public, private, protected) in the context of base and derived classes. Provide an example illustrating their use.

Q2. Outline the basic exception handling mechanism in C++. Explain the roles of try, throw, and catch with a code example that demonstrates how to handle exceptions in a function.

Q3. Describe the process of file handling in C++. Explain how to create, read, update, and manage both sequential and random-access files.

Prepared By:
Er Vinod Goyal,
Assistant Professor (CSE),
CDOE, GJUS&T, Hisar